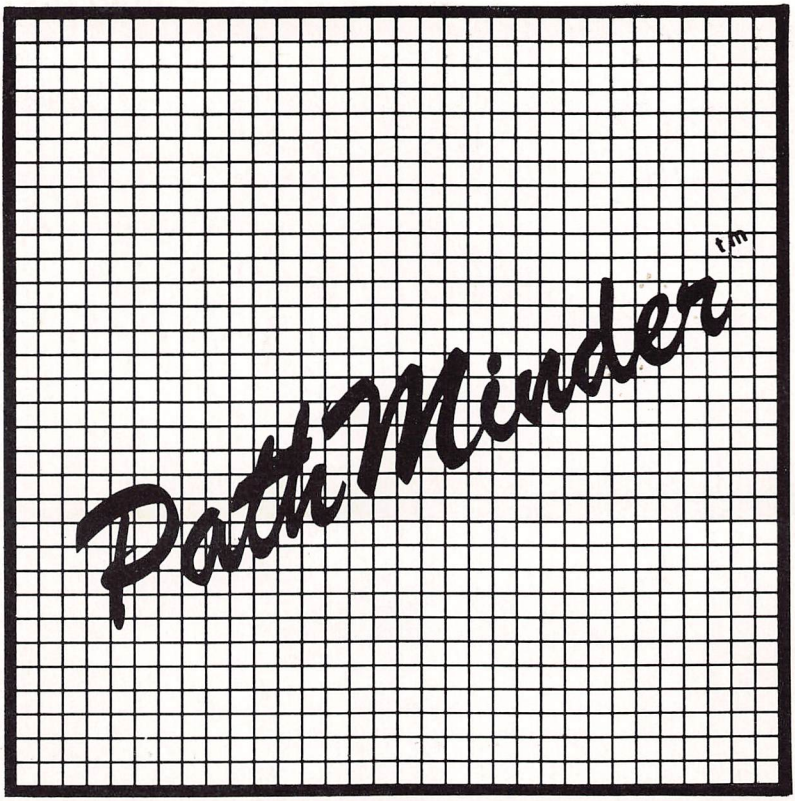

THE VISUAL SHELL FOR DOS

Directory Manager

System Log Utility

Full Screen Editor

File Encryption

File Manager

Plus

WESTLAKE DATA CORPORATION

P.O. Box 1711 Austin, Tx. 78767

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Registration Card

To obtain technical support for PathMinder, we MUST have your registration card on file. If you call our technical support hotline, and we do not have your registration card on file, our support staff can not provide support.

We also use the information on the registration card to notify you about upgrades to PathMinder.

Preface

To the Novice:

The IBM Personal Computer (and compatible machines) is a truly impressive machine. It is fast, very powerful, and is graced with a versatile operating system. Unfortunately, this power exacts its price in ease of use. We designed PathMinder to make using a PC under DOS 2.0 (or later versions) as easy as possible. We hope to convince you that we have accomplished our goal.

To the Expert:

DOS 2.0 is a very powerful operating system. Unfortunately, it is somewhat cumbersome, and is missing several features we feel are necessary for efficient use. We designed PathMinder to address the shortcomings of DOS, and to allow a more streamlined approach to operating a PC. PathMinder is the utility we have always wanted for ourselves... we use it every day, and hope that you will, too.

Table of Contents

Chapter 1: Introduction

PathMinder represents a bold step forward in the use of your personal computer. Gone forever are the days of typing commands to DOS to perform the functions that are a part of using your PC. You need never see the cryptic "A>" prompt again.

Scope

PathMinder is a visual shell for DOS[1]. Instead of typing commands, PathMinder presents levels of menus that guide you to the proper operation.

PathMinder will run .COM, .EXE, .BAT, and .BAS programs by highlighting them in a file list. After the program has run, you are returned back to PathMinder, eliminating the need for any direct interaction with DOS.

PathMinder includes an integrated, full-screen editor, a useful and usable alternative to DOS's EDLIN[2] program. The editor may be used for memos and other simple word processing needs, since it includes all of the editing functions of a basic word processor.

PathMinder is a complete directory management system. PathMinder displays a disk's entire directory structure, not just a single directory. PathMinder displays a disk's files in an orderly manner, sorted four different

---

[1] Version 2.0 or later.

[2] EDLIN is the standard, line-oriented editor that is included with DOS.

ways. As you can see, PathMinder makes it easy for you to organize your software library.

PathMinder is a comprehensive file management utility. You may selectively manipulate the files that are a part of using your PC. PathMinder also implements certain file management functions that are not available under DOS.

PathMinder is an applications manager. It allows you to easily access the applications programs you use via your custom applications menu. Popular applications programs, such as word processors, spreadsheets, data base managers, and any other type of program that runs under DOS may be accessed with two keystrokes.

PathMinder keeps a log of system usage. Presently, the United States Internal Revenue Service requires business computer users who deduct or depreciate their computer systems to keep a log of use proving that the system is used primarily for business purposes. PathMinder does this automatically. For more information about tax savings with a business system, see your accountant.

PathMinder protects your data and programs. PathMinder includes file encryption, enabling you to prevent unauthorized individuals from accessing your programs and data. Any DOS file can be encrypted by PathMinder.

Definition of Terminology Used

Throughout this manual, we use several terms that may not be immediately familiar to you.

The glossary, at the end of the manual, contains definitions of those terms.

Whenever you are expected to press a key to instruct PathMinder to perform a given task, the key you are to press will be enclosed in square brackets. For example, if you are to press the Enter key, you will be told to "press [Enter]".

Hardware Requirements

PathMinder requires an IBM-PC, XT, AT, or true compatible. A minimum of 128k of memory, one floppy or hard disk drive, an IBM color or monochrome display card (or equivalent) and a compatible monitor. MS-DOS (or PC-DOS) version 2.0 or later is required.

PathMinder makes these assumptions about your system:

Your computer must run MS-DOS or PC-DOS, version 2.0 or later. We have run PathMinder successfully with PC-DOS 2.0, 2.1, and 3.0.

Your computer's BIOS (Basic Input / Output System) must be similar to the IBM-PC's in the keyboard, video, and equipment flag areas.

Your computer's video display adapter must map into memory in the same locations as an IBM Color Graphics Adapter, or an IBM Monochrome and Printer Adapter. The BIOS equipment flag must also reflect the proper display adapter status.

If the above paragraphs sound like gibberish, do not be alarmed. If you own an IBM-PC, COMPAQ, Corona, or other "fully compatible" machine, with the computer manufacturer's recommended display, PathMinder should work properly. The above information is intended to help users of less compatible hardware determine if PathMinder will work on their systems.

Systems Tested

We have tested PathMinder on the following systems:

IBM PC, XT, AT, and Portable PC
AT&T 6300
Corona desktop, portable, PB-400, and Mega PC
COMPAQ, COMPAQ+, COMPAQ Deskpro
Kaypro 16, 286i, and lap top
Stearns PC
Panasonic Sr. Partner
TeleVideo PC
Columbia desktop and portable
ITT Xtra
Sperry desktop and portable
Leading Edge PC
Data General/One
Quadram Datavue 25

Inclusion on this list does not indicate that Westlake Data Corporation is endorsing a particular machine, or that a particular hardware manufacturer endorses PathMinder.

The systems in the above list are ones we have tested, but Westlake Data Corporation makes no guarantee, either stated or implied, that PathMinder will run on your system.

If you are using PathMinder on a system that is not on this list, please contact us so we may include your computer on the list of tested systems.

Explanation of General Concepts

PathMinder has a consistent user interface. What that bit of jargon actually says is that once you master one part of PathMinder, you may apply your knowledge to learning other parts of the program. We feel that PathMinder is as easy to learn as it is easy to use.

Throughout the manual, references will be made to different parts of the PathMinder screen display.

The PathMinder screen is divided into three windows. Each window serves a specific purpose:

The menu window is the top two lines of the screen. This is where PathMinder displays all of its menus. This is also where error messages and other informative messages appear. Whenever PathMinder wants you to enter information, you will be asked in the menu window.

In the upper-right corner of the menu window is the menu title. The menu title tells you your location in PathMinder. At certain times, the Menu Title displays the message "WAIT". This is to tell you that PathMinder is performing a time-consuming task, and to reassure you that PathMinder has not "gone to sleep", or become otherwise nonfunctional.

The file window is the left half of the screen beneath the menu window. This is where PathMinder displays the list of files, or file list on your disk. The highlight bar is centered vertically in the file window. The file that is currently displayed in the highlight bar is said to be highlighted. The highlighted file is the file that certain PathMinder commands (such as Edit) affect.

The data window is the right half of the screen beneath the menu window. This is where PathMinder displays its status information, and its help screens.

In certain cases, the file window and the data window become one. If you select Option View Date/Time from the main menu, the windows are merged, and the file list expands to show the date and time information for the files. Also the Editor normally uses the full screen to display the text you are editing.

The bottom line of the screen displays the PathMinder copyright message. Inside the Editor, the bottom line shows the function key definitions.

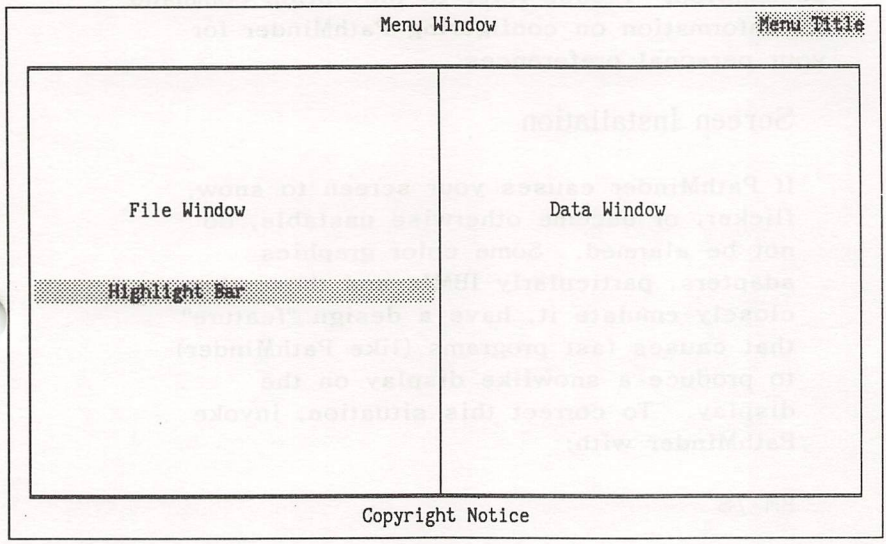

Figure 1.1 Screen Layout

Chapter 2:
Getting Started

Installation Instructions

PathMinder is very intelligent. It senses your system's configuration, and adapts to it. Your input is minimal. However, customizing PathMinder to suit your preferences is easy to accomplish. Please refer to the Option command for information on configuring PathMinder for your personal preferences.

Screen Installation

If PathMinder causes your screen to snow, flicker, or become otherwise unstable, do not be alarmed. Some color graphics adapters, particularly IBM's and those that closely emulate it, have a design "feature" that causes fast programs (like PathMinder) to produce a snowlike display on the display. To correct this situation, invoke PathMinder with:

```
PM /S
```

or

```
PMV /S
```

from the DOS prompt. The "/S" is a command line option that tells PathMinder to use its anti-snow routines when displaying text. The net result is a much more stable display.

On many machines (Such as an IBM with Monochrome Display Adapter, COMPAQ and

Corona,) the "/S" option is unnecessary. Using it will slow down PathMinder. The authors recommend that you try PathMinder first without the "/S" option, and only use "/S" if your display is unacceptably unstable.

PathMinder has a command line switch that inhibits color from being displayed. PathMinder assumes a set of video attributes that is displayed clearly on any sort of display. If you have started PathMinder with "/M", it does not display any of the video attributes you set.

When using PathMinder on a system equipped with both a color and a monochrome display, use "/M" when running on the monochrome display:

```
PM /M
```

or

```
PMV /M
```

PathMinder will ignore the video attributes you have set in your configuration file. Do not use the "/M" option when running on the color display, and your display will show the colors you have set.

BASIC Installation

Normally, to execute BASIC programs, PathMinder will ask where it can find your BASIC interpreter. You are only asked once per session, before you try to run the first BASIC program (You are asked again if you

move or erase your BASIC interpreter from the directory you told PathMinder that BASIC was in.) If you wish to avoid being asked where BASIC is, follow this procedure:

PathMinder uses an Environment Variable to optionally specify BASIC's location. In your AUTOEXEC.BAT file, you need to set this environment variable to tell PathMinder where your BASIC interpreter is. Add this line to your AUTOEXEC.BAT file:

```
SET BASSPEC=A:\BASICA.COM
```

if your BASIC interpreter is in the root directory of the disk in drive A:, and is entitled BASICA.COM. For a Corona with a hard disk, using GWBASIC, a possible line would be:

```
SET BASSPEC=C:\TOOLS\GWBASIC.EXE
```

This tells PathMinder that your BASIC interpreter is in the TOOLS directory on the hard disk, drive C:.

A sample AUTOEXEC.BAT file is on the PathMinder distribution disk. It is an example of a setting for BASSPEC.

Note: There can be no spaces between the word BASSPEC and the equal sign, or between the equal sign and the drive letter.

If you do not intend to run BASIC programs from within PathMinder, you need not set BASSPEC.

Starting PathMinder

PathMinder can be run two different ways. It can be kept completely in memory at all times, or it can release most of the memory it uses for other programs which are run within PathMinder, reloading the portion of the program that was in the freed memory. When PathMinder is kept completely in memory, it is said to be in Resident mode. When PathMinder is reloaded from disk after each program is run, it is said to be in Virtual mode.

When running PathMinder in the resident mode, you may remove the disk that contains the PathMinder files after PathMinder is loaded. This is particularly useful on systems which lack a hard disk.

When running PathMinder in the virtual mode, its files must always be available.

To start PathMinder in the resident mode, make sure the file PM.EXE is in the current directory of the current drive. Type

```
PM
```

and press the enter key from the DOS prompt to start PathMinder. The title page will be displayed. Press any key (the space bar works fine) to continue to PathMinder's main menu.

To start PathMinder in the virtual mode, make sure that PM.EXE and PMV.EXE are both available. Type

```
PMV
```

and press the enter key from the DOS prompt.

Command Line Options

PathMinder has four command line options that allow you to inform PathMinder how you would like it to start up:

/S Snow Suppression
/M Monochrome mode (no colors)
/X Skip opening screen
/N Suppress request for login information

To start PathMinder in the virtual mode, skipping the opening screen, and in the monochrome mode, you would invoke PathMinder with

```
PMV /X /M
```

To start PathMinder in the resident mode, with snow suppression in effect, you would use

```
PM /S
```

The Main Menu

After you have invoked PathMinder, in the menu window you are presented with the main menu. The main menu is displayed after the PathMinder opening screen. From it you dispatch all of PathMinder's commands.

Selecting Menu Options

You command PathMinder through a series of menus. These menus appear at the top of the screen, in the menu window. In the upper-right

corner of the screen is the menu title, which always tells you which menu is presently on the screen. This prevents you from getting lost in PathMinder.

The top line of the screen presents the menu's options. These are the valid choices for the menu.

The second line of the screen presents the menu option descriptions. This line changes to show a one-line description of the highlighted menu option.

There are two ways to select your choice from a menu:

1. You may select your choice by highlighting it. The right arrow [ ] key is used to highlight the previous menu option. The left arrow [ ] key will highlight the next menu option. As you press these arrow keys, the option description will change to describe the currently highlighted menu option. To select the currently highlighted menu option, press [Enter] (sometimes labeled as [Return]).

2. You may select your choice by pressing the key corresponding to the first letter of the menu option. For example, to Edit the currently highlighted file, press the [E] key.

If you wish to exit a menu without selecting one of the options, (such as when you have pressed the wrong key,) press [Esc]. You will be returned to the previous menu.

If you wish to return to the main PathMinder menu (or text entry mode if in the editor), select Quit from the current menu.

Moving the File Window

The File Window is a window into the list of files on your disk. Since there can be more files on a disk than the file window can show at once, PathMinder allows you to move the file window, to manipulate all of the files on the disk.

Up Arrow [ ] moves the file window up one entry, thus highlighting the previous entry.

Down Arrow [ ] moves the file window down one entry, thus highlighting the next entry.

[PgUp] moves the file window up one page. The entry that was at the top of the file window is now the highlighted entry.

[PgDn] moves the file window down one page. The entry that was at the bottom of the file window is now the highlighted entry.

[Home] moves the file window to the top of the file list. The first entry in the file list is now the highlighted entry.

[End] moves the file window to the bottom of the file list. The last entry in the file list is now the highlighted entry.

[Ins] will open the highlighted directory. The files within the directory will be displayed, indented under the directory that contains them. All files displayed are

available for manipulation, so you are not restricted to working with files in any one particular directory.

[Del] will close the highlighted directory, and all other directories within it. The files within it will not be displayed.

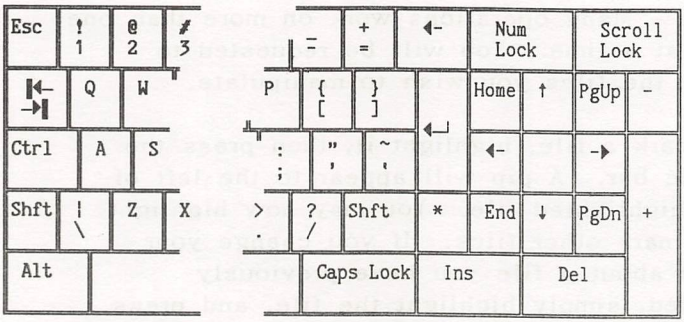

Figure 2.1 Location of File Window Movement Keys

NOTE: When Num Lock is active (as indicated by the word "Num" near the right end of the lower horizontal border,) the file list will not move. Press [Num Lock] to allow the file list to move. There will be no "Num" indicator on the border when you can move the file list.

Specifying Files

PathMinder must know which files you want it to manipulate. There are two techniques used to specify these files to PathMinder.

Highlighting - Whenever PathMinder wants you to specify a single file, you are asked to highlight it.

To highlight a file, place it on the highlight bar with the cursor keys. The file is now said to be highlighted.

Mark - Many operations work on more than one file at a time. You will be requested to mark the files you wish to manipulate.

To mark a file, highlight it, then press the space bar. A pip will appear to the left of the highlighted file. You may now highlight and mark other files. If you change your mind about a file you have previously marked, simply highlight the file, and press the space bar again. The pip disappears. The space bar toggles the pip on the highlighted file.

```
Mark Entries to Erase                                          File Erase
Spacebar toggles pip, Enter accepts, Esc aborts

 Filename                Ext        Size   | Help: PathMinder Menu
Root                            Directory  |
■ AUTOEXEC               BAT         122   | Special Purpose Keys:
  COMMAND                COM       17792   |
■ CONFIG                 SYS          52   | ←┘   Execute Highlighted command
  TEST                          Directory  | ←    Highlight previous command
    TEST                 ASM        5612   | →    Highlight next command
    COMPILE              BAT          36   | ↑    Highlight previous file
■   TEST                 EXE        1236   | ↓    Highlight next file
    TEST                 OBJ        1170   |
  TOOLS                         Directory  | PgUp  Move file list up one page
  WORK                          Directory  | PgDn  Move file list down one page
■   HELLO                TXT       11780   | Home  Move to top of file list
    DATA                          Directory | End   Move to bottom of file list
    FONTS                         Directory |
      ITALIC12           FON        8750   | Esc   Return to main menu
      ROMAN12            FON        6562   |
      ROMAN12B           FON        8912   | Ins   Open highlighted directory
                                           | Del   Close highlighted directory

13190  bytes in marked files                                  5 files marked
```

Figure 2.2 Marking Files

If you press the space bar when you are highlighting a directory, you will mark all of the files in that directory[3]. If you press the space bar again, you will unmark all of the files in that directory.

You cannot mark a directory. This is not a limitation, because PathMinder's multiple file operations do not function on subdirectories. For example, you cannot use File Erase on a directory. Use Directory Remove to "erase" an empty directory.

---

[3] Except read only files, in certain cases

Pressing [Esc] removes all marks, and takes you to the previous menu.

Quitting PathMinder: The XDOS Command

The XDOS command instructs PathMinder to return to DOS. You will be asked to confirm your decision to quit PathMinder. If you answer Yes, you will exit PathMinder, and return to DOS. If you answer No or press [Esc], you will return to PathMinder's main menu.

Entering Text: The Line Editor

Whenever PathMinder needs you to enter textual information, you enter the information via the line editor. The line editor allows you to enter the required information quickly and easily. The input field, which is the area in which you enter the information, will be presented in the menu window. Simply type the required information, and press [Enter] when you re done.

In addition, special editing keys are available in the line editor:

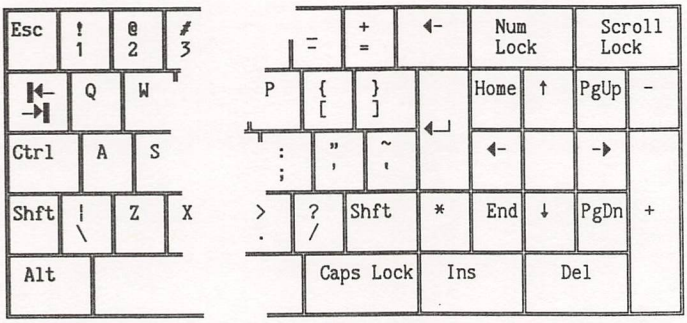

Figure 2.3 Line Editor Special Keys

Backspace (grey [ ]) - Delete previous character

[Ctrl] Backspace (grey [ ]) - Delete entire line

Left Arrow (white [ ]) - Character left

Right Arrow ([ ]) - Character right

[Home] - Jump to beginning of line

[End] - Jump to end of line

[Esc] - Abort without changing text

[Ctrl] Left Arrow - Word left

[Ctrl] Right Arrow - Word right

[Ctrl] [End] - Delete to end of line

[Enter] - Accept current text

Chapter 3:
Running Programs

The Run Command

The Run command instructs PathMinder to run the highlighted file (assuming it is a program). PathMinder runs the highlighted program, and redisplays the main menu upon return from the program.

PathMinder can run four types of programs:

Those with an extension of .COM or .EXE are executed directly by PathMinder.

Programs with an extension of .BAT are run with the help of DOS's COMMAND.COM file.

Interpreted BASIC programs, those with an extension of .BAS, are run with the help of your BASIC interpreter. PathMinder will ask for the location and name of your BASIC interpreter, unless you have already specified this information. Please refer to the Installation section of the manual for information regarding installation of the BASIC search options.

If the file you have highlighted does not have an extension of .COM, .EXE, .BAT, or .BAS, the file is not executable by PathMinder, and you will receive an error message when you attempt to run the file. PathMinder will not let you run a file that was not meant to be run.

The Compose Command

The Compose command allows you to type a command directly to DOS, just as if you were not in

PathMinder. However, you can specify which directory you wish to make current before the command is executed.

PathMinder determines the current directory from the highlighted file. If a directory is highlighted, it is made the current directory. If a file is highlighted, the directory it is within is made the current directory.

For example, highlight a directory, select Compose, and type

DIR

and press Enter. You will see the normal DOS directory listing of the directory that is highlighted.

The Application Menu

The application menu contains the names of the user-defined application programs. They may be run by selecting the desired application on the menu.

Optionally, the application may take as its input information about the file that is currently highlighted.

For information about setting up the application menu, and for more information about using a predefined application menu, refer to Chapter 8: The Application Manager.

Programs PathMinder Should Not Run

There are certain programs that should not be run from within PathMinder.

Resident programs, such as Sidekick, ProKey and other similar keyboard enhancers, and those that save the screen (PHOSPHOR, SCRNSAVE) should not be run from within PathMinder. These are examples of programs that are essentially additions to DOS, and should never be run from within PathMinder. Any other type of program that continues to function after it has returned you to the DOS ("A>") prompt should not be run. All of these may be run before PathMinder is invoked, and we suggest you put these commands in your AUTOEXEC.BAT file on your boot disk, so they are automatically loaded.

The DOS commands PROMPT, PATH, and SET should not be run from within PathMinder. Due to the design of DOS, they will not work properly when invoked from a "shell" such as PathMinder. Again, run these commands before you invoke PathMinder.

Chapter 4: The File Manager

Manipulating Files: The File menu

The information your computer deals with is organized into files. A daily chore of the computer user is to erase, copy rename, and otherwise manipulate these all-important files. PathMinder makes it easy to perform the file operations that were previously accomplished by typing commands to DOS. The menu-driven approach used by PathMinder is a help for both the novice and the expert: the novice doesn't need to repeatedly thumb through manuals, and the expert is provided with faster, more efficient file manipulation. In addition, PathMinder offers several file manipulation commands that are not available as DOS commands.

PathMinder's File menu contains the commands that manipulate files one at a time, or in groups.

File Type and File Rename manipulate files one at a time.

File Copy, File Move, File Erase, File Kill, the commands on the File Attribute menu, File Encrypt, and File Decrypt manipulate multiple files with a single operation. Any of these operations can be interrupted once they have started by pressing [Esc], terminating their operation after they have finished processing the current file.

Copying Files: The File Copy menu

The File Copy menu contains the commands which enable you to make copies of your files. When you select File Copy, PathMinder will display a menu with two options:

File Copy Subdirectory command

File Copy Subdirectory will allow you to copy files to another directory on the same disk.

After you select this option, you will be prompted to mark the files you wish to copy.

After you have marked the files, highlight the destination directory (the directory in which to place the copies of the marked files.)

Then press [Enter]. PathMinder will ask you to confirm your choice.

PathMinder will copy the marked files into the highlighted directory.

File Copy Drive command

File Copy Drive will allow you to copy files to another disk.

After you select this option, you will be prompted to mark the files you wish to copy.

After you have marked the files, press [Enter].

PathMinder will now prompt you (with a menu) for the destination drive. Select the destination.

PathMinder will read in the directory information from your destination drive, and the destination will be displayed in the file window. Highlight the directory on the destination drive in which you would like to copy the files (normally the root directory), and press [Enter].

Confirm your choice, and the copying commences.

You may not copy files to the same drive with this command... use the File Copy Subdirectory command to accomplish this.

Viewing Files: The File Type command

The File Type command allows you display the contents of the highlighted file. To display a file, highlight the file, and select File Type. The file will be displayed. (For many files it it more convenient to Edit the file than to type it.)

To prevent the file from scrolling, press [Ctrl] and [NumLock] together. Pressing the space bar will cause the scrolling to continue.

Renaming Files:
The File Rename command

The File Rename command allows you to rename the highlighted file. To rename, highlight the file, then select File Rename. PathMinder will then ask you for the new filename. Type the filename to PathMinder. You may use the backspace key (grey [ ]) to correct a typing error. When you press Enter, the file will be renamed. If you press [Esc], the file will not be renamed, and you will be returned to PathMinder's main menu.

Moving Files:
The File Move command

The File Move command allows you to move your files to another directory. File Move is a true move: it is considerably faster than copying, and the file disappears in the source directory.

After you select this option, you will be prompted to mark the files you wish to move.

After you have marked the files, highlight the destination directory (the directory in which to move the marked files.)

Then press [Enter]. After you confirm your choice, PathMinder will move the marked files into the highlighted directory.

Erasing Files:
The File Erase command

The File Erase command allows you to erase or delete selected files.

After you select this option, you will be prompted to mark the files you wish to erase.

After you have marked the files, press [Enter].

PathMinder will prompt you to confirm that you wish to erase the files. If you answer Yes, PathMinder will erase the marked files. If you answer No, PathMinder will not erase the files, and will return you to the main menu. If you press [Esc], PathMinder will return you to the previous menu, with no files erased.

Obliterating Files:
The File Kill command

If your disk contains sensitive data, information that you want no one to be able to access, you should not use File Erase (or DOS's ERASE command) to erase those files. Peter Norton, the author of the Norton Utilitiestm, has been successful marketing a program that will allow you to recover "accidentally" erased files. If you do not want your files recovered by anyone, you need a more secure means of erasing the data. The File Kill command answers that need.

extension to prevent duplicate file names. For example, if you encrypt the files

TEST.DOC
WS.COM
TEST.EXE

PathMinder will name the encrypted versions of the files:

TEST.000
WS.000
TEST.001

to prevent two files from having the same name.

Decrypting Files: File Decrypt command

To decrypt files, select File Decrypt. PathMinder will then prompt you to mark the files you wish to decrypt. After you have marked the files, press [Enter].

You will now be asked for the decryption key. The decryption key may be up to 79 characters long. PathMinder uses this key to decrypt the file. It must exactly match the key used to encrypt the files.

After you have entered the decryption key, you will be asked whether or not you wish to have the encrypted version of the file erased automatically by PathMinder. If you select Yes, PathMinder will only erase the original files that have been successfully decrypted. If you select No, PathMinder

will not kill or otherwise manipulate the encrypted versions of your files.

Finally, PathMinder will ask you to verify the decryption of the marked files. When you give your verification, PathMinder begins decryption.

File Quit command

The File Quit command returns you to the main menu. You will be asked to confirm returning to the main menu.

The File Kill command allows you to totally obliterate your files. Files that have been killed cannot be recovered by any means, so be sure that you really want to destroy the files you mark.

After you select this option, you will be prompted to mark the files you wish to kill.

After you have marked the files, press [Enter].

PathMinder will prompt you to confirm that you wish to kill the files. If you answer Yes, PathMinder will kill the marked files. If you answer No, PathMinder will not kill the files, and will return you to the main menu. If you press [Esc], PathMinder will return you to the previous menu, with no files killed.

Once a file is killed, it is gone forever, so be sure that you have marked only the appropriate files. Even in the expert user mode, PathMinder requires you to confirm the File Kill command.

Changing File Attributes: File Attrib menu

The File Attrib Menu contains the commands that allow you to manipulate the attributes of your files.

To view the attributes of your files, select Option View Date/Time from the main menu.

There are two file attributes that PathMinder can modify: The Archive attribute, and the Read Only attribute.

The Archive attribute is normally set when you use the BACKUP program that comes with DOS. This attribute is automatically reset whenever a file is modified. PathMinder allows you to modify the archive attribute with two commands:

The Read Only attribute is used to protect files from accidental erasure. A file that it protected by having its Read Only attribute set cannot be erased, killed, moved, or otherwise modified.

PathMinder will not modify or erase a file that is protected with the Read Only attribute, and neither will DOS. Of course, a program could deprotect the file by first resetting the Read Only attribute. The safest way to insure that important data is not accidentally erased or modified is to keep plenty of backup copies.

File Attrib Archive command

The File Attrib Archive command sets the archive attribute on each of the files you mark.

File Attrib Unarchive command

The File Attrib Unarchive command resets the archive attribute on each of the files you mark.

File Attrib Protect command

The File Attrib Protect command sets the read only attribute on each of the files you mark.

File Attrib Deprotect command

The File Attrib Deprotect command resets the read only attribute on each of the files you mark.

File Attrib Quit command

The File Attrib Quit command returns you to the main menu. You will be asked to confirm returning to the main menu.

Protecting Confidential Files:
File Ncrypt command

The File Ncrypt command enables you to protect your confidential data. You can protect sensitive data files, or limit access to programs by encrypting their files. PathMinder can encrypt any file on your disks, as long as they are readable with DOS 2.0 or later.

Certain copy-protection schemes may not be compatible with Ncrypt; if you encrypt and then decrypt a copy-protected program , it may not run after decryption. We have not yet found any situations where this is true, but feel that the possibility does exist. To that end, use Ncrypt and Decrypt at your own risk.

To encrypt files, select File Ncrypt. PathMinder will then prompt you to mark the files you wish to encrypt. After you have marked the files, press [Enter].

You will now be asked for the encryption key. The encryption key may be up to 79 characters long. PathMinder uses this key to encrypt (and subsequently decrypt) the file. If you forget the encryption key you have entered, YOU WILL NEVER SEE YOUR ORIGINAL FILES AGAIN.

> Westlake Data Corporation has no method to retrieve encrypted data in the event that you have lost or forgotten your encryption key. This is to insure the security of your encrypted data. If you lose your encryption key, THE FILE WILL BF LOST.

After you have entered the encryption key, you will be asked whether or not you wish to have the original file killed automatically by PathMinder. If you select Yes, PathMinder will only kill the original files that have been successfully encrypted. If you select No, PathMinder will not kill or otherwise manipulate your original files.

Finally, PathMinder will ask you to verify the encryption of the marked files. When you give your verification, PathMinder begins encryption.

The encrypted files will have new extensions. PathMinder uses the numbered extensions .000 through .999. PathMinder automatically assigns a higher numbered

Chapter 5:
The Directory Manager

Manipulating Directories:
The Directory menu

The Directory menu contains the commands that manipulate the subdirectories on the disk.

Viewing Subdirectories:
The Directory Open command

The Directory Open command allows you to open the highlighted subdirectory for viewing. The files within the directory will be displayed, indented under the directory that contains them. All files displayed are available for manipulation, so you are not restricted to working with files in any one particular directory.

Closing Subdirectories:
The Directory Close command

Directory Close will close the highlighted directory, and all subdirectories within it. The files within it will not be displayed.

If you are highlighting a file instead of a directory, the Directory Close command will close the directory which contains the highlighted file.

The root directory can never be closed.

Sorting the File List: The Directory Sort menu

The Directory Sort command allows you to tell PathMinder how you would like the file list displayed. PathMinder sorts the file list automatically as you open and close subdirectories.

In a given directory, all of the files are listed first, followed by all of the subdirectories. This scheme eliminates the confusion as to which directory a file is within.

Whenever you choose a Directory Sort option, PathMinder closes all subdirectories, and sorts the root directory. PathMinder then reopens the directories to rehighlight the file highlighted when the Directory Sort command was issued. As you open more subdirectories, they are sorted using the scheme you specified

Directory Sort Name command

Directory Sort Name sorts the file list by name and then extension.

Directory Sort Extension command

Directory Sort Extension sorts the file list by extension and then name. We find this to be the most useful way to keep the file list sorted.

Directory Sort Size command

Directory Sort Size sorts the file list by size and then name and then extension.

Directory Sort Date/Time command

Directory Sort Date/Time sorts the file list by date then time then name and then extension.

Creating New Subdirectories: The Directory Make command

The Directory Make command allows you to create a new subdirectory.

Highlight the directory in which you wish to create the new subdirectory. Select Directory Make.

PathMinder will then prompt you for the name of the new directory. Type the filename to PathMinder. You may use the the backspace key (grey [ ]) to correct a typing error.

When you press [Enter], the new directory will be created. If you press [Esc], the directory will not be created, and you will be returned to the previous menu.

Removing Empty Subdirectories: The Directory Remove command

The Directory Remove command allows you to remove an empty directory.

The directory must be empty. Use File Erase or File Kill to erase all files in the directory you wish to remove.

To remove a directory, highlight the directory you wish to remove, and select Directory Remove. PathMinder will ask you to confirm your selection. If confirmed, PathMinder will remove the highlighted directory (if it is empty). You cannot remove the root directory.

Certain programs create hidden files in subdirectories, as a part of their copy protection schemes. If a directory contains hidden files, it cannot be removed, either by PathMinder, or by DOS.

Directory Quit command

The Directory Quit command returns you to the main menu. You will be asked to confirm your selection of this menu option.

Chapter 6: The Editor

Introduction to the Editor

In order for an individual to use the power of his personal computer, certain tools are necessary. One of these tools is a text editor. A text editor allows you to create, modify, and manipulate text files. Text files are disk files that contain text in human readable form. These files could be memos, notes, or documents. For the purpose of consistency, we will refer to all text files as documents. Since a text editor is such an indespensible tool in using a personal computer, a text editor is included in PathMinder.

Getting Started with the Editor

Creating a Document

The first step in using the editor is learning how to create a document. To create a document for editing you must first decide where on the disk you would like to create the document. This may be in any directory on the current drive.

Once you have decided where the document will be created, highlight the directory in which you wish to create the document. Select the Edit command from PathMinder's main menu to invoke the editor. The screen below the menu window will clear and you will be asked to type in the name of the document you wish to create.

Names may be up to eleven characters long and are composed of an eight character name

and a three character extension separated by a period. A name does not have to have an extension and does not have to fill the entire eleven characters. If you make a mistake while typing in the name of the document, press the backspace key to erase the last character you typed.

At this point if you have decided that you no longer wish to create a document you may return to the main menu by pressing [Esc]. If you do decide to create the document, pressing [Enter] will accept the document name and the editor will then create the document in the selected directory. The editor is now ready for you to type your text.

Editing an Existing Document

The editor can also be used to modify or change documents that already exist on the disk. To do this highlight the document you wish to modify and select the Edit command from PathMinder's main menu. The screen beneath the menu window will clear and first page of text already in the document will be displayed. The editor is now ready for you to modify your document.

The Editor Screen Layout

The editor screen is divided functionally into two areas, the text you are working on and status indicators that provide you with important information about the document you are working on. The text of the document is displayed in the middle of the screen and the status indicators are located in the

menu window and on the bottom line of the screen.

Located on the first line of the menu window are status indicators describing the document and your position within it. The indicators show the name of the document currently being edited, the current line, column, and position in the document, and the document's size.

The PathMinder editor provides you with a temporary text buffer that serves as a temporary place to store text when you move, copy, or delete a block of text. The second line of the menu window displays the contents of this temporary text buffer. In the buffer display tabs are indicated by a small arrow pointing to the right ( ) and carriage returns are indicated by by a large arrow pointing to the left followed by a reversed "L" shaped bracket ( ). If the contents of the temporary buffer will not fit on the single line, the beginning and end of the buffer will be displayed, with three dots separating the beginning from the end.

The editor provides you with two ways to enter text into the current document. One way, called the insert mode, inserts the text between characters already in the document. The other way, called the overtype mode replaces an already existing character with the character just typed. Located in the upper right corner of the screen is an indicator specifying the insert or the overtype mode.

To speed up operation, the editor allows you to access several of the most frequently used commands through the function keys. The bottom line of the screen is used to display a brief definition of what each function key does. For a more detailed description of the use function of the cursor keys (and the other special keys) press [F1] (the help key) from the text entry mode.

```
AUTOEXEC.BAT   Line     1  Column     1  Position     Ø  Of   118        Insert
{mode lpt2:◄↵}
echo off
cls
break on
path=c:\tools
prompt=$p ►
date
time
set BASSPEC=C:\TOOLS\BASICA.EXE
cd \tools
pmv /m
♦

F1Help F2Format F3▪Del F4▪Ins F5▪Copy F6▪Mark F7Replace F8Find F9Update F1ØEsc
```

Figure 6.1 Editor Text Entry Mode

The editor has two modes of operation. The first, called the text entry mode, allows you to enter text into the document by typing at the keyboard. The other mode, called the command mode, presents you with a series of menus which allow you to perform

different operations such as moving or copying blocks of text. When you are in the text entry mode, the status indicators are displayed in the menu window. When the command mode is entered, the editor's main menu replaces the status indicators in the menu window. Pressing [Esc] switches between text entry mode and command mode.

```
Disk  Format  Block  Mark  Jump  Search  Option  Help  Quit                Edit
Save, Update, Put, Get
──────────────────────────────────────────────────────────────────────────────
echo off
cls
break on
path=c:\tools
prompt=$p ▶
date
time
set BASSPEC=C:\TOOLS\BASICA.EXE
cd \tools
pmv /m
*

──────────────────────────────────────────────────────────────────────────────
F1Help F2Format F3▪Del F4▪Ins F5▪Copy F6▪Mark F7Replace F8Find F9Update F10Esc
```

Figure 6.2 Editor Command Mode

Using the Editor

Entering Text

When you start the editor by creating a new document or by selecting an old one to modify, the editor will be ready to accept text that you type from the keyboard. You

type text into the editor the same way you would on a typewriter. When you type text at the keyboard it will appear on the screen at the cursor position.

The cursor will appear as a solid bright block. The cursor is located on the screen where the next character you type will be located.

If you make a mistake while typing, pressing the backspace key (grey [ ]) will erase the last character you typed and move the cursor back one character position so you can type the proper character.

The [Del] key will also remove erroneous text, except that it erases the character beneath the cursor.

If you should decide to delete the entire current line, pressing the [Ctrl] backspace (grey [ ]) will delete the entire current line and save it in the temporary buffer.

The editor provides you with two ways to advance to the next line. One way is to press [Enter] to advance to the next line. The other is to use the editor's word wrap capability. If you turn the word wrap on the editor will automatically move to the next line when you reach the right margin. It will also bring all of the current word you were typing to the beginning of next line. See the section on configuring the editor for instructions on how to turn on the word wrap and setting the margin.

If you reach the edge of the screen and still have more text to type on the current line, simply keep typing and the editor will shift the text ten characters to to the left. If you type more than ten extra characters the editor will shift the text again. This will continue until you press [Enter] or reach the right margin if the word wrap is on. When you advance to the next line, the text will shift back to its original position and the text you typed beyond the edge of the screen will not be displayed. You can create documents that are much wider than the width of the screen.

The editor provides you with two ways to enter text into the current document. One way, called the insert mode, inserts the text between characters already in the document and the other way, call the overtype mode replaces an already existing character with the character just typed. The [Ins] key toggles between these two modes.

Moving the Cursor

The cursor is your way of indicating to the editor where you want to change the text you are working on. In order to provide as much flexibility as possible the editor allows for several ways to move the cursor. In order to make movement as convenient as possible, the editor provides methods to move by characters, words, lines, and pages.

The numeric key pad on the right side of the keyboard doubles as a cursor control pad. This contains the keys most frequently used

to move the cursor. The cursor movement keys can be broken up as horizontal cursor movements and vertical cursor movements.

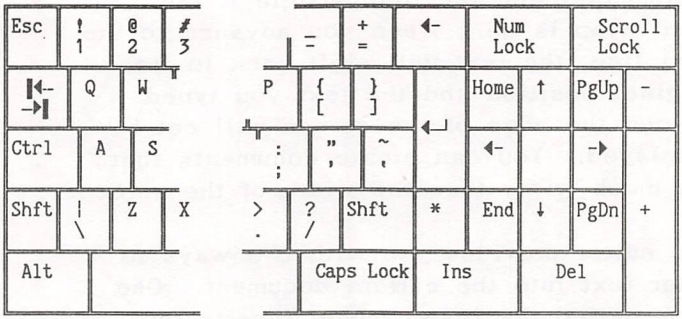

Figure 6.3 Editor Cursor Movement Keys

Horizontal Cursor movement

By Character

[ ] left arrow - moves the cursor one character to the left

[ ] right arrow - moves the cursor one character to the right

By Word

[Ctrl][ ] right arrow - moves the cursor word right

[Ctrl][ ] left arrow - moves the cursor word left

By Line

[Home] - moves cursor to beginning of line
[End] - moves cursor to end of line

Vertical Cursor movement

By Line

[ ] up arrow - moves cursor up one line
[ ] down arrow - moves cursor down one line

By Page

[PgUp] - moves text window up one page
[PgDn] - moves text window down one page

Screen

[Ctrl][Home] - moves cursor to beginning of screen
[Ctrl[End] - moves cursor to end of screen

Document

[Ctrl][PgUp] - moves cursor to beginning of document
[Ctrl][PgDn] - moves cursor to end of document

Editor Main Menu Commands

The editor has its own set of menus to invoke commands. Pressing the [Esc] key while in the text entry mode will make the editor's main menu to appear at the top of the screen. The main menu is broken up functionally into disk operations, formatting operations, block operations, search operations, cursor movement operations, and configuration options.

Saving Your Work: The Disk menu

Once you have modified a document you will want to be able to save what you have changed. The editor allows several ways to accomplish this. These are Update, Save, and Put. These three options are accessed through the disk menu on the main editor menu.

Disk Update command

The Disk Update command saves the document to the name it was loaded with or the name you created it with. The editor returns to the text entry mode. The new version of the document will replace the old version on disk. If you have changed disks and the old document is not on the new disk, a new document will be created using the old document's name.

Disk Save command

The Disk Save command will allow you to save the document to disk with a different name than the one it started with. This will create a new document with the name you specify. It will not affect the old document, unless you specify the old name. If a document already exists with the name you specified it is overwritten.

Disk Put menu

The Disk Put menu allows you to save a marked block of text to disk or print the marked block to a printer. You must mark the block before you invoke either of the Disk Put commands.

Disk Put File command

If you select the Disk Put File command the editor creates a file with the name you specify, and copies the marked block into it. If a file of the same name already exists, it is written over. If a block of text has not been marked an error message appears and you are returned to the text entry mode.

Disk Put Printer command

If you select the Disk Put Print command, the editor will write the marked block of text to the printer exactly as it appears on the screen. If a block of text has not been marked an error message appears and you are returned to the text entry mode.

Disk Get command

The Disk Get command enables you to copy the contents of a disk file into the current document at the current cursor position. Disk Get will ask you for a filename to get from. If get cannot

find the filename you specified, an error message will appear and you will be returned to the text entry mode. If get finds the file it will read the text from the file and insert it in the current document.

Disk Quit command

This command will return you to the text entry mode without executing any of the disk commands.

Formatting Text: The Format menu

The PathMinder editor also provides you with facilities for doing simple word processing. These facilities include word wrap, centering, aligning text, and reformatting paragraphs. To use any of these commands you must have the word wrap on.

Format Center command

If you select the Format Center command, the line the cursor is currently on will be centered between the left side of the screen and the right margin you have defined. If the line is longer than the right margin the line will be left justified.

Format Left command

If you select the Format Left command the line the cursor is currently on will be aligned with the left side of the screen.

Format Right command

If you select the Format Right command the line the cursor is currently on will be aligned flush with the right margin that you have defined.

Format Format command

The Format Format command allows you to reformat a paragraph after you have edited it or changed the margins. The end of a paragraph is defined by pressing the [Enter] key twice. This will leave one blank line between paragraphs. When you select this command the paragraph the cursor is currently in will be reformatted and the cursor will be moved to the next paragraph. Reformatting a paragraph makes all text in the paragraph fit inside the currently defined margin.

Marking Text: The Mark command

The Mark command on the main editor menu allows you to begin marking a block of text for moving, copying, or deleting. When you select the mark command, the current cursor position becomes anchored and when you use the cursor movement keys the cursor will expand to cover the text you are marking. You may marked text going forward or backward through the text.

Once a block is marked you may delete it to a temporary buffer, copy it to a temporary buffer, or put it to a disk file.

Moving Text: The Block menu

The Block menu allows you to manipulate a block of text marked as described above.

Block Delete command

The Block Delete command will allow you to delete a group of characters called a block. If you wish to remove a block of text, first Mark it using the technique described above, then select Block Delete. This will delete the marked block from the current text buffer and save it in a temporary buffer for future use. This will destroy the previous contents of the temporary buffer. If you issue the Block Delete command without having marked a block, an error message will appear and you will be returned to the text entry mode.

To move the deleted block to another position in the text use the Block Insert command.

Block Copy command

The Block Copy command allows you to copy a block of text that has been marked to the editor's temporary text buffer. It replaces any text that was previously in the temporary buffer. If no block has been marked an error message appears and you are returned to the text entry mode.

Block Insert command

The Block Insert command allows you to insert a block of text from the temporary buffer at the current cursor position. Before using this command you must have loaded the temporary buffer with text using either the Block Delete command or the Block Copy command.

Block Quit command

This command will return you to the text entry mode without doing any block operations.

Moving the Cursor from the Menu: The Jump Menu

The jump menu allows you to move the cursor quickly to certain places in the file.

Jump Begin command

This command moves the cursor to the beginning of the document.

Jump End command

This command moves the cursor to the end of the document.

Jump First command

This command moves the cursor to the first line of the current text page. This is the upper left corner of the screen.

Jump Last command

This command moves the cursor to the last line of the current text page. This is the lower right corner of the screen.

Jump Quit command

This command will return you to the text entry mode without moving the cursor.

Finding Text: The Search Menu

The Search menu allows you to search for characters or combinations of characters in the text buffer. The search starts at the current cursor position and continues forward.

If the text is not found an error message appears and you are returned to the text entry mode. The search menu has two options, Find and Replace.

Search Find command

The Search Find command will ask you to type up to a twenty-five character string for which to search.

The editor will then search the document for the first occurance of a matching string. If it finds a match it will place the cursor immediately after the matching string. If it does not find a matching string, an error message will appear and the cursor will not be moved.

Once the text is either found or the error message is displayed, you will be returned to the text entry mode. The search text you typed in will be retained, so if you wish to find the next occurance of a matching string simply select the find command again.

Search Replace command

The Search Replace command behaves the same way as the find command except the replace command will ask you for a string to replace the search text with. If the replace command finds a matching string, it will replace it with the specified replacement text.

Search Quit command

The Search Quit command will return you to the text entry mode without executing any search operations.

Configuring the Editor: The Option menu

The Option menu allows you to configure the editor to suit your preferences. All the settings of the toggles are saved when a configuration file is created from PathMinder's main Options menu (not to be confused with the editor Options menu.)

Saving your work automatically: Option Update menu

The Option Update command allows you to toggle automatic updating of current file upon exiting the editor.

Option Update Yes command

If you select the Option Update Yes command the automatic updating of documents upon exiting the editor will be turned on.

Option Update No command

If you select the Option Update No command the automatic updating of documents up exiting the editor will be turned off.

Setting tab stops: Option Tab set menu

The Option Tab set command allows you to set the tabstops of the editor to a value between 1 and 9.

Option Tab set 1 - 9 commands

The Option Tab set command sets the tab stops to every 1...9 characters.

Automatically indenting: The Option Auto-Indent menu

The Option Auto-Indent command allows you to toggle the automatic insertion of

the same number of spaces and/or tabs at the beginning of a new line as at the beginning of the previous line.

This is useful when you are typing in information that is offset on the page, and you do not wish to manually tab over to the column to start typing.

Option Auto-Indent Yes command

If you select the Option Auto-Indent No command the automatic insertion of an equal amount of blank space at the beginning of the current line as on the previous line will be turned on.

Option Auto-Indent No command

If you select the Option Auto-Indent No command the automatic insertion of an equal amount of blank space at the beginning of the current line as on the previous line will be turned off.

Displaying the position indicators: The Option Position menu

The Option Position command allows you to toggle the document position indicators at the top of the editor screen on or off.

Option Position Yes command

If you select the Option Position Yes command the display of document

position information while you are in the text entry mode will be enabled.

Option Position No command

If you select the Option Position No command the display of document position information while you are in the text entry mode will be disabled.

Using the Editor as a Word Processor: The Option Wrap menu

The Option Wrap command allows you to toggle the editor's word wrap capability on or off. These commands also allow you to enable or disable the text formatting capabilities of the editor. These capabilities allow the editor to be used as a simple word processor.

Option Wrap Yes command

If you select the Option Wrap Yes command, the automatic insertion of an end of line character when the right margin is reached will be turned on. All formatting capabilities of the editors will be enabled.

Option Wrap No command

If you select the Option Wrap No command, the automatic insertion of an end of line character when the

right margin is reached will be turned off. All formatting capabilities of the editors will be disabled.

Setting the right margin: The Option Margin command

The Option Margin command allows setting of the right margin for word wrap, formatting, alignment, and centering operations. You will be presented with a five character field with the default margin already displayed. To set the margin to a new value, backspace over the previous value and type in the new margin value. The new margin will be set and you will be returned to the text entry mode.

Displaying the Editor Status: The Option Status command

The Option Status command allows you to check the status of all the configurable editor options. When the Option Status command is selected the menu window will display the status of the following options:

```
Update (Yes or No)
  Tabs (1 ... 9)
  Indent (Yes or No)
  Position (Yes or No)
  Wrap (Yes or No)
  Margin (Ø ... 65535)
  Memory (Ø ... 65535)
```

Pressing any key will return you to the text entry mode.

Option Quit command

The Option Quit command will return you to the text entry mode without setting or displaying any options.

Special Key Help: The Help command

If you are editing a document and you need a little help remembering what any special keys do, selecting the help command will display a single page help screen with the definitions of all the special keys of the editor.

Exiting the Editor: The Quit command

When you have completed your editing of a document you must issue this command to return to the main PathMinder menu. When you exit the editor if the automatic update feature is on the document you are currently editing will be updated.

If you have modified the document you were editing and have not updated the document to disk, the PathMinder editor will present you with a menu that allows you to update the document, exit, or return to the text entry mode. This prevents you from losing work that you have not saved by exiting the editor.

Editor Special Function Keys

In the interest of speed the most commonly used editor functions have been made accessible through the function keys. This means once you are comfortable with the editor you can do certain things with one keystroke instead of two or three. The operations produced by the function keys are listed at the bottom of the editor screen. All of the functions defined by the function keys have been covered, so a brief list of their definitions follows. Note that the function keys can only be used in the text entry mode and are not active in the command mode

Display Editor Help Screen ▶	F1	F2	◀ Reformat Current Paragraph
Delete Marked Block of Text ▶	F3	F4	◀ Insert Temporary Buffer at Cursor
Copy Marked Block of Text ▶	F5	F6	◀ Begin Marking a Block of Text
Repeat Last Replace Command ▶	F7	F8	◀ Repeat Last Find Command
Update File on Disk ▶	F9	F10	◀ Enter an Esc Character into Text

Fig 6.4 Editor Function Keys

Chapter 7:
Configuring PathMinder

The Option Menu

Individual computer users have different preferences about how they like their computer to behave. Because of this, PathMinder allows you to configure its operation via the Option menu.

Selecting the Current Drive: The Option Drive command

The Option Drive command is used to select the current disk drive. When you select Option Drive, PathMinder will prompt you for the letter of the drive to select. After you have selected the drive letter, PathMinder will read the directory structure to show the root directory of the newly selected drive. PathMinder now uses the newly selected drive for all operations.

Selecting the Data Window Display: The Option View menu

The Option View menu is used to select the display in the Data Window. PathMinder can show different information in this window, and you can configure PathMinder to your level of expertise and to your personal preferences through the use of the Option View command.

Option View Help command

The default viewing mode is Option View Help. When Option View Help is

selected, the Data Window displays the PathMinder help screens. The help screens correspond to the menu that is displayed in the Menu Window. As the menus change, so do the help screens. Keeping Option View Help as your viewing mode is a quick way to gain proficiency with PathMinder.

```
Run  File  Directory  Edit  Option  Application  Compose  Log  XDOS  PathMinder
Execute Highlighted File

 Filename              Ext      Size   Help: PathMinder Menu
Root                          Directory
  AUTOEXEC             BAT       122   Special Purpose Keys:
  COMMAND              COM     17792
  CONFIG               SYS        52   ←┘   Execute Highlighted command
  TEST                      Directory   ←-   Highlight previous command
    TEST               ASM      5612   -→   Highlight next command
    COMPILE            BAT        36   ↑    Highlight previous file
    TEST               EXE      1236   ↓    Highlight next file
    TEST               OBJ      1170
  TOOLS                     Directory
  WORK                      Directory   PgUp  Move file list up one page
    HELLO              TXT     11780   PgDn  Move file list down one page
    DATA                      Directory Home  Move to top of file list
    FONTS                     Directory End   Move to bottom of file list
      ITALIC12         FON      8750
      ROMAN12          FON      6562   Esc   Return to main menu
      ROMAN12B         FON      8912
                                        Ins   Open highlighted directory
                                        Del   Close highlighted directory

PathMinder v2.00 - (c) Copyright 1984, 1985 Westlake Data Corporation
```

Figure 7.1 Options View Help
Screen Display

Option View Status command

PathMinder is instructed to display system status information with the Option View Status command. With Option View Status as the viewing mode, the following information is displayed in the Data Window:

System Date and Time - The current date and time, as specified by your computer's internal clock. If you set the date and time by responding to DOS's requests on startup, or if you have an aftermarket clock/calendar and run the appropriate software, PathMinder will continuously display the current date and time.

Drive Status - PathMinder will display the drive letter of the active drive, its Volume Label, the number of bytes of storage that the disk can hold (total), the number of bytes used, and the number of bytes free.

Memory Status - PathMinder will display the total amount of RAM installed in your computer, the amount used (by PathMinder and all previously installed resident programs), and the amount free for use by programs Run from within PathMinder.

Log Status - PathMinder displays the current user name, the account that is currently logged, and whether or not PathMinder is recording a system log. For more information about the system log, refer to Chapter 9.

All of the information on the status screen is updated by PathMinder at appropriate times. For example, after

you erase a file, the Drive Status changes immediately to reflect the increase in available storage space.

```
Run File Directory Edit Option Application Compose Log XDOS PathMinder
Execute Highlighted File

 Filename          Ext      Size   |          System Status
Root                     Directory |
  AUTOEXEC         BAT       122   | 19 Feb 1985                11:12:11a
  COMMAND          COM     17792   |
  CONFIG           SYS        52   |          Drive C Status
  TEST                     Directory | Volume Label              ASM_STORAGE
    TEST           ASM      5612   | Bytes of Storage Total        5287963
    COMPILE        BAT        36   | Bytes of Storage Used         3284992
    TEST           EXE      1236   | Bytes of Storage Free         2002944
    TEST           OBJ      1170   |
  TOOLS                    Directory |          Memory Status
  WORK                     Directory | Bytes of RAM Total             524288
    HELLO          TXT     11780   | Bytes of RAM Used              126512
    DATA                   Directory | Bytes of RAM Free              397776
    FONTS                  Directory |
      ITALIC12     FON      8750   |          Log Status
      ROMAN12      FON      6562   | Current User                  Joe User
      ROMAN12B     FON      8912   | Current Account            Business #1
                                    | System Log is Currently           On

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```

Figure 7.2 Option View Status Screen Display

Option View Date/Time command

PathMinder is instructed to display the date and time associated with each file or directory with the Option View Date/Time command. When you select Option View Date/Time, PathMinder will expand the File Window to the full width of the screen (The Data Window disappears) and displays the date and time with each file or directory.

PathMinder also shows the File Attributes in the Date/Time mode. R/O shows if the file is protected with its read only attribute set. Archive shows if the file has its archive attribute set.

```
Run  File  Directory  Edit  Option  Application  Compose  Log  XDOS  PathMinder
Execute Highlighted File
```

Filename	Ext	Size	Date	Time	File Attribute	
Root		Directory				
AUTOEXEC	BAT	122	2-18-1985	12:56p		
COMMAND	COM	17792	10-20-1983	12:00p	R/O	
CONFIG	SYS	52	1-29-1985	2:59p		
TEST		Directory	1-30-1985	12:54p		
TEST	ASM	5612	1-30-1985	1:54p		Archive
COMPILE	BAT	36	1-30-1985	1:30p		
TEST	EXE	1236	1-30-1985	1:59p		
TEST	OBJ	1170	1-30-1985	1:58p		
TOOLS		Directory	1-24-1985	10:43a		
WORK		Directory	2-16-1985	2:53p		
HELLO	TXT	11780	2-17-1985	4:54p	R/O	Archive
DATA		Directory	2-16-1985	2:55p		
FONTS		Directory	2-16-1985	2:56p		
ITALIC12	FON	8750	9-29-1983	12:00p		
ROMAN12	FON	6562	9-29-1983	12:00p		
ROMAN12B	FON	8912	9-29-1983	12:00p		

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Figure 7.3 Option View Date/Time Screen Display

Option View Quit command

The Option View Quit command returns you to the main menu. You will be asked to confirm returning to the main menu.

The commands on the Option View menu can be accessed from any menu within PathMinder, except from the editor. The function keys F1, F3, and F4 correspond to Option View

Help, Option View Status, and Option View Date/Time, respectively. Simply press the function key corresponding to the Option View you prefer.

Silencing PathMinder: The Option Beep menu

When PathMinder reports an error, it produces a beep to provide audible reinforcement of an error, unless you have told PathMinder not to beep.

Option Beep Yes

To allow PathMinder to provide audible reinforcement of error conditions, use Option Beep Yes.

Option Beep No

To prohibit PathMinder from producing any sounds whatsoever, use Option Beep No.

Option Beep Quit command

The Option Beep Quit command returns you to the main menu without changing the beep setting. You will be asked to confirm returning to the main menu.

Setting the Video Display Attributes: The Option Attribute menu

The Option Attribute command is used to change the visual appearance of PathMinder. You are not limited to the color

combinations that are appealing to the program designer.

On a monochrome display, some of the color choices produce interesting effects. We recommend using the /M option when starting PathMinder on a system equipped with a monochrome display.

None of the video attributes you change become permanent until you use the Option Write command, which will save the video attributes you have selected to the configuration file.

Option Attribute Foreground menu

The Option Attribute Foreground menu contains the commands that change the foreground portion of the PathMinder display.

Option Attribute Foreground Normal command

The Option Attribute Foreground Normal command sets the video attribute for the editor's normal text display.

Option Attribute Foreground Highlight command

The Option Attribute Foreground Highlight command sets the video attribute for the highlighted portions of the screen, such as the titles of each screen area, and the marked text in the editor.

Option Attribute Foreground Input command

The Option Attribute Foreground Input command sets the video attribute for the input fields on the screen. Whenever PathMinder prompts you to type in information, the input field is displayed in this video attribute.

Option Attribute Foreground Border command

The Option Attribute Foreground Border command sets the video attribute for the lines that form the borders of the PathMinder display.

Option Attribute Foreground Error command

The Option Attribute Foreground Error command sets the video attribute for the error messages and the help screens.

Option Attribute Foreground Menu command

The Option Attribute Foreground Menu command sets the video attribute for PathMinder's menus.

Option Attribute Foreground File command

The Option Attribute Foreground File command sets the video attribute for the files listed in the file window.

Option Attribute Foreground Dir command

The Option Attribute Foreground Dir command sets the video attribute for the directories listed in the file window.

Option Attribute Foreground Quit command

The Option Attribute Foreground Quit command returns to the main menu without modifying any of the video attributes.

Option Attribute Background menu

The Option Attribute Background menu contains the commands that change the background portion of the PathMinder display.

Option Attribute Background Normal command

The Option Attribute Background Normal command sets the background video attribute for all of PathMinder, except for the

highlighted areas and the input fields.

Option Attribute Background Highlight command

The Option Attribute Background Highlight command sets the background video attribute for PathMinder's highlight fields, such as the highlight bar, the selected menu option, marked text in the editor, and status screen titles.

Option Attribute Background Input command

The Option Attribute Background Input command sets the background video attribute for all input fields. Whenever PathMinder prompts you to type in information, the input field is displayed in this video attribute.

Option Attribute Background Quit command

The Option Attribute Background Quit command returns to the main menu without modifying any of the video attributes.

Option Attribute Quit command

The Option Attribute Quit command returns to the main menu without modifying any of the video attributes.

Adjusting for the User's Experience: The Option User menu

When we wrote PathMinder, we wanted it to be useful to a broad base of individuals. We wanted it to be useful to both the novice and expert. (We wanted to sell it to everyone with a PC) To help accomplish these goals, we have designed the Option User command.

Option User Novice command

For the beginner, Option User Novice mode provides the most protection from inadvertent loss of data. Any operation that could be considered even remotely dangerous asks for confirmation before it is executed. Also, the system makes every attempt to explain what is happening in case of error.

Option User Expert command

For the experienced user, Option User Expert mode provides quicker response. All but the most dangerous of commands (File Kill and XDOS are two examples) operate faster since you do not need to confirm them. Also, certain routine operations do not return error messages. For example, if you try to open a file (instead of a directory), PathMinder does nothing.

Selecting the Editor's Display: The Option Edit menu

The Option Edit command allows you to configure PathMinder's editor to work in different areas of the screen. Certain applications are more convenient in a particular edit mode, so try them all and see which you prefer.

Option Edit Full Screen command

Option Edit Full Screen is the default mode. The editor uses the full width of the screen, overwriting both the File Window and the Data Window.

Option Edit Data Window command

Option Edit Data Window is used to restrict the editor to operation within the Data Window. The file list remains visible throughout the editing session.

Option Edit Quit command

The Option Edit Quit command returns you to the main menu, without changing the editor's display mode. You will be asked to confirm returning to the main menu.

Pause after a Program is run? The Option Pause menu

When PathMinder returns from executing a program (via the Run or Compose commands, or

the Application menu) the message "Press any key to continue..." is normally displayed, and PathMinder waits for you to press a key before displaying the screen and main menu. The Option Pause menu contains the commands that enable you to suppress this pause, if desired.

Option Pause Yes command

The Option Pause Yes command causes PathMinder to pause and display the "Press any key to continue..." message upon return from program execution.

Option Pause No command

The Option Pause No command prevents PathMinder from pausing and displaying the "Press any key to continue..." message upon return from program execution. As soon as your program is finished, PathMinder displays its screen display and main menu.

Option Pause Quit command

The Option Pause Quit command returns you to the main menu without changing the pause setting. You will be asked to confirm returning to the main menu.

Designing the Application menu: The Option Menu menu

The Option Menu menu contains the commands for defining you own application menu. Please refer to Chapter 8 for information about the application menu.

Displaying the settings of the PathMinder Options: The Option Status command

The Option Status command enables you to check the status of the most important options. When Option Status is selected, the menu window displays the status of the following options:

Current Drive (A, B, C,...)

Sort Mode (Name, Extension, Date/Time, or Size)

View Mode (Status, Help, Date/Time)

Beep (Yes or No)

User (Novice or Expert)

Edit (Full Screen or Data Window)

Pause (Yes or No)

Pressing any key will return you to the PathMinder main menu.

Saving PathMinder's configuration: The Option Write command

The Option Write command will save the settings of your options to a file (PM.CNF) in the directory that PathMinder was loaded from. The next time you start PathMinder, your options will be set just as you saved them.

PathMinder does not save the Option Drive setting... the current drive at the start of PathMinder is used until changed.

Option Quit command

The Option Quit command returns you to the main menu. You will be asked to confirm your selection.

Chapter 8:
The Application Manager

Editing a file with PathMinder's editor is very easy to do. Simply highlight the file you wish to edit, and select Edit from the main menu. Wouldn't it be convenient to be able to add your own application programs, such as WordStar or dBASE to a menu, so they would be as convenient as the PathMinder editor?

PathMinder's application manager allows you to define you own Application menu. This menu works just like any other PathMinder menu, and can even have its own custom help screen. You can integrate any application program that runs under DOS with PathMinder's application manager.

Setting up the Applications Menu

Before you can use your custom applications menu, you must define it. PathMinder provides a menu-driven system for defining your own application menu.

Designing the Application menu: The Option Menu menu

The Option Menu menu contains the commands that enable you to define your application menu. When you select Option Menu, the application editor screen is displayed.

The file window displays the current settings of the fields which make up the current application. This information is updated whenever you select a different application as the current application, or whenever you edit one of the fields.

The data window always displays help information about the current menu. Defining applications is the most difficult part of using PathMinder, and these help screens make it easy.

```
Select  Edit  Help Edit Remove Quit                                  Option Menu
Select the Appliction to Edit or Remove
```

Application Editor		Help: Option Menu Menu	
Name:		Select	Select the application to modify.
Desc:		Edit	Edit the fields of the current application.
Path:		Help Edit	Edit the Application menu's help screen.
Filespec:		Remove	Remove the current application
Cmd Line:			

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Figure 8.1 Application Editor

Option Menu Select command

The first step in defining the application menu is to select the application you wish to define.

After you issue the Option Menu Select command, you are presented with a menu of the currently defined applications, with two extra options, *New* and Quit.

To modify an existing entry on the application menu, simply select it. The entry you select will become the current entry. The fields of the current application are displayed in the file window.

To create a new entry, select *New*. PathMinder will create a blank application, (called *Unused*) which will be the current application.

To return to the main menu without selecting an application, or creating a new application, select Quit.

Option Menu Edit menu

The Option Menu Edit menu contains the commands that enable you to edit the specific fields of the selected application. Editing the fields is the next step in creating your application menu.

```
Name  Description  Path  File Spec  Command Line  Quit                    Option Menu Edit
Edit the name of the appliction
```

Application Editor	Help: Option Menu Edit Menu
Name:	Fields:
Desc:	Name — First line of menu Description — Second line of menu Path — Directory to exec from File Spec — File to execute Command Line — Command line to pass Quit — Return to main menu
Path:	Macros:
Filespec:	~FD File Drive ("C:") ~FP File Path ("C:\Dir") ~FN File Name ("FILENAME") ~FE File Extension (".EXT") ~FS Complete FileSpec
Cmd Line:	

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Figure 8.2 Application Editor Edit Screen

Option Menu Edit Name command

This command enables you to edit the name of the application, as presented on the first line of the application menu. The name may be up to 25 characters long.

If the first character of the name is a number, or a CAPITAL letter, the application may be accessed by pressing the key corresponding to the first letter of the command, just as in all the PathMinder menus. If the first character is in lower case, the command can not be accessed in this manner. This is a useful technique for limiting

accidental access to dangerous applications. The application can be invoked by using the left and right arrows to highlight the menu option, and pressing [Enter].

If two menu options are defined with the same first character of the name, pressing the key corresponding to the first letter of the name will select the first defined application. For example, if your application menu has ZenWriter, WordStar, DBASE, and WonderCalc defined, pressing [W] from the application menu would invoke WordStar, not WonderCalc.

Option Menu Edit Description command

This command enables you to edit the option description of the application, as presented on the second line of the application menu. The description may be up to 79 characters long.

The purpose of the description field is purely explanatory; PathMinder will work properly if this field is left blank.

Option Menu Edit Path command

This command enables you to edit the current directory of the application. The path may be up to 79 characters long.

The Path is the drive directory in which the application manager should make

current before your program is run. PathMinder changes the current drive and the current directory to those specified here.

For example, if you have WordStar and the files you wish to edit in the WORDPROC subdirectory on your fixed disk, drive C:, your path would be

C:\WORDPROC

Or, if you have Lotus 1-2-3 in the LOTUS subdirectory on your fixed disk, your path would be

C:\LOTUS

If you were running 1-2-3 from floppy drive A:, the path would be

A:\

Option Menu Edit File Spec command

The Option Menu Edit File Spec command enables you to edit the filespec of the program you will run. The filespec may be up to 79 characters long.

For example, if you have WordStar and the files you wish to edit in the WORDPROC subdirectory on your fixed disk, drive C:, your filespec would be

C:\WORDPROC\WS.COM

Option Menu Edit Command Line command

The Option Menu Edit Command Line command enables you to edit the command line of the program you will run. The command line may be up to 79 characters long.

If you do not enter a command line, PathMinder will not send one to your program. For example, WordStar would start up in the No File menu, and you could select a file to edit.

It would be much more convenient to be able to highlight the file you want to edit (as with the PathMinder editor), invoke the application, and have PathMinder load your application and tell the application which file to edit. PathMinder has a set of Macros which makes this easy to do.

Macros

Macros are special characters which instruct PathMinder to get the necessary information from the highlighted entry in the file window.

There are five macros that may be used. Each begins with a tilde (~).

For each example, consider the highlighted file to be ZORRO.DOC in the PURPLE subdirectory on drive C:.

~FD - returns the drive of the highlighted file, such as C:

~FP - returns the path of the highlighted file, complete with drive letter. In this case,

C:\PURPLE

~FN - returns the name of the highlighted file, with no extension. In this case,

ZORRO

~FE - returns the extension of the highlighted file, complete with the leading period. In this case,

.DOC

~FS - returns the entire filespec of the highlighted file, in this case,

C:\PURPLE\ZORRO.DOC

The macros may be used in either the Path, Filespec, or Command Line fields. They are most useful in the Path and Command line fields.

Example of Macros in an Application

For example, consider VP, a demonstration program that allows you to view a medium-resolution picture on an IBM color graphics adapter. VP is invoked with

VP PICTURE.EXT

or

VP C:\ART\PICTURE.EXT

Where PICTURE.EXT is the name of the picture, and the path is optional. In our example, we will invoke VP with the entire path. This will allow it to function with its picture files in any subdirectory.

In our example, VP will be in the TOOLS subdirectory on drive C:.

The application's name field will be defined as

View Picture

so the application will be available from the application menu by pressing [V].

The application's description field will be defined as

View the highlighted picture file

to provide more information for someone using our application menu.

The application's path field will be defined as

~FP

This sets the path to the path of the highlighted file.

The application's filespec field will be defined as

C:\TOOLS\VP.EXE

since VP has an extension of .EXE and is in the TOOLS subdirectory. Since the location of VP will not change, no macro is needed

The application's command line field will be defined as

~FS

since VP will work with an entire filespec.

When the application is invoked...

If the file PM.PIC were highlighted on drive A:, and the VP application we have defined was invoked, the application manager would do the following:

Change the current directory to A:\, since that is where the highlighted file is located, and the path is set to the ~FP macro.

Load the program VP.EXE from the TOOLS subdirectory of drive C:.

Pass to VP the command line of A:\PM.PIC, the filespec of the highlighted file.

Another invocation...

If the file JOURNAL.PIC were highlighted on drive C: (in the PHOTOS subdirectory), and the VP application we have defined was invoked, the application manager would do the following:

Change the current directory to C:\PHOTOS, since that is where the highlighted file is located, and the path is set to the ~FP macro.

Load the program VP.EXE from the TOOLS subdirectory of drive C:.

Pass to VP the command line of C:\PHOTOS\JOURNAL.PIC, the filespec of the highlighted file.

As you can see, setting up applications takes a bit of practice, but need only be done once.

Option Menu Edit Quit command

The Option Menu Edit Quit command returns you to the main menu. You will be asked to confirm your selection.

Designing the Application menu help screen:
The Option Menu Help Edit menu

The Option Menu Help Edit menu enables you to design a custom help screen for your application menu. You can put any information you see fit on this help screen.

If you do not define a custom help screen for your application menu, PathMinder will default to the display of the main menu help screen.

```
Title A B C D E F G H I J K L M N O P Q R S Quit                    Help
Edit the Application Menu help screen's title
```

```
                                  Help: Option Menu Help Edit Menu
                                  ←-A
                                  ←-B  Select line A - S, of T for the
                                  ←-C  title line of the help screen.
                                  ←-D
                                  ←-E  The Application Menu's title
                                  ←-F  line is automatically displayed
                                  ←-G  in the highlighted attribute
                                  ←-H
                                  ←-I
                                  ←-J
                                  ←-K
                                  ←-L
                                  ←-M
                                  ←-N
                                  ←-O
                                  ←-P
                                  ←-Q
                                  ←-R
                                  ←-S
```

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Figure 8.3 Application Editor
Help Editor

Option Menu Help Edit Title

The Title command allows you to create and edit the title for your application menu help screen. You will be presented with the current title (which may be blank) and may edit it with the line editor.

Option Menu Help Edit A - S

The A - S commands allow you to create and edit the lines of help screen. You will be presented with the current line (which may be blank) and may edit it with the line editor.

Option Menu Help Edit Quit

The Option Menu Help Edit Quit command returns you to the main menu. You will be asked to confirm your selection.

Removing the current Application: The Option Menu Remove command

The Option Menu Remove command allows you to remove the current application from the application menu. You will be asked to confirm your selection.

Option Menu Quit command

The Option Menu Quit command returns you to the main menu. You will be asked to confirm your selection.

Using the Application menu

The application menu is used just as is any other PathMinder menu. The specifics of its use will depend on the applications that are actually defined on the menu.

If no application menu has been defined, PathMinder will issue an error message when Application is selected from the main menu.

Pressing the first letter of a menu option will work just as it does on any other PathMinder menu, as long as the first letter of each option is unique, and there are no lower case letters.

If two menu options are defined with the same first letter of the name, pressing the key corresponding to the first letter of the name will select the first defined application on the menu. For example, if your application menu has ZenWriter, WordStar, DBASE, and WonderCalc defined, pressing [W] from the application menu would invoke WordStar, not WonderCalc.

If the first character is in lower case, the command can not be accessed by pressing the key corresponding to the first letter. The application can be invoked by using the left and right arrows to highlight the menu option, and pressing [Enter].

Chapter 9: The System Log

PathMinder includes the facilities to produce a detailed log of system activity. The United States Internal Revenue Service now requires business computer users who deduct or depreciate their computer systems to keep a log that demonstrates that the system is used for business purposes. PathMinder automates that rather tedious task.

The PathMinder log can also be used as a basis for computer use accounting: The log keeps track of the time you spend on your system, and the time spent doing specific tasks.

If you use your system for personal use, PathMinder's log provides an insight into how much time you really spend at the keyboard, and which programs you spend the most time with.

To keep an accurate system log, PathMinder makes one demand on you: You must set your system's date and time before you run PathMinder. If you do not, the log generated by PathMinder will be useless. If your system is equipped with a battery-powered clock / calendar option, as is present on many multifunction cards, use the software supplied with the clock / calendar to set your system's clock. If your system is not equipped with a clock / calendar, be sure you do not ignore your computer's request for date and time when you turn on your computer.

User Names and Accounts

PathMinder will record information about the user of the system. When the log feature is active, PathMinder will ask (when the PathMinder

program is started) for the name of the current user of the system.

PathMinder's log will keep track of ten separate accounts. This allows logged work to be broken up logically.

There is one personal account, for use when performing non-business work on the system.

There are nine business accounts. This allows the organization of business-related work to be subdivided as desired. For example, a consultant with four clients can keep a log of work done, and receive daily totals for each individual client.

Information in the Log File

The log file records specific information about each operation that is logged. PathMinder always records the current account, the start time, the stop time, and the type of operation. In addition, PathMinder records pertinent information specific to the type of operation logged. For example, when you edit a file, PathMinder records the filespec of the file that is edited.

Operations that are Logged

PathMinder does not log every interaction between you and your system; to do so would quickly fill all available disk space. All of the most important operations are logged:

Login - PathMinder records a log entry when you start the PathMinder program. PathMinder records the user name of the

individual who is logging in for this session.

Logout - PathMinder records a log entry when you exit to DOS via the XDOS command. PathMinder records the user name of the individual who is logging out.

Run - PathMinder records a log entry whenever you run a program by highlighting it and executing it via the Run command. PathMinder records the filespec of the program that is being run.

Compose - PathMinder records a log entry whenever you compose a command via the Compose command. PathMinder records the entire command you have composed.

Application - PathMinder records a log entry whenever you run an application via the application menu. PathMinder records the name of the application, and the command line that is passed to the application. For example, if you set up an application menu entry for VP, the graphics view picture utility, as we did in chapter 8, PathMinder records the application's name (View Picture) and the filespec of the picture being viewed (such as JOURNAL.PIC).

Edit - PathMinder records a log entry whenever you edit a file with the PathMinder editor. PathMinder puts an asterisk (*) beside the word Edit to indicate that the file was modified and

written out to disk. In addition, PathMinder records the filespec of the file that was edited.

Sample Log File

Please refer to Appendix A for an example of a log file (in text format).

Manipulating the System Log: The Log menu

The log menu contains the commands that enable you to manipulate the system log.

The current log settings (on or off, user name, current account) are written to the configuration file when the Option Write command is issued from the main menu. PathMinder will then remember the setting the next time it is run.

Turning on the Log: The Log Yes command

The Log Yes command activates the system log.

If you have not logged in previously, you will be prompted to enter the name of the current user (with the line editor), and the account.

If PathMinder can not find an existing PM.LOG file, it will be created within the directory which was the current directory at the time PathMinder was started. For example if you were in the root directory on drive A: when PathMinder was started, the

PM.LOG file will be created in the root directory on drive A:.

If you have turned on the system log, and have written out the configuration file (with the Option Write command), the next time that PathMinder is started, you will be prompted for user name and current account immediately after the title page is displayed. If you do not want to be asked for this information every time you start PathMinder, invoke PathMinder with the /N (No login) command. The log will continue to be written, but PathMinder will assume that the user name and current account written in the configuration file are correct.

Turning off the Log: The Log No command

The Log No command turns off the system log.

If you have turned off the system log, and have written out the configuration file (with the Option Write command), the next time that PathMinder is started, you will not be prompted for user name and current account after the title page is displayed, since this information is irrelevant when a log is not being recorded.

Selecting the current account: The Log Account menu

The Log Account menu allows you to select the current account being logged. Use this command to select the account that subsequent commands will be logged under.

Log Account Personal command

The Log Account Personal command sets the current account to personal. All subsequent operations are logged to the personal account.

Log Account 1 - Log Account 9 commands

The Log Account 1 - Log Account 9 commands set the current account to Business #1 - Business #9. All subsequent operations are logged to the account you have selected.

Log Account Quit command

The Log Account Quit command returns you to the main menu without changing the active account. You will be asked to confirm returning to the main menu.

Setting the current User: Log User command

The Log User command allows you to set the current user name, with the line editor.

If you end editing the user name with [Enter], PathMinder will log out the previous user, and log in the new user.

If you abort the editing of the user name, (with [Esc]) PathMinder keeps the old user name, and does not log in or log out the user.

PathMinder will not let you enter a blank user name. When the system log is on, PathMinder requires a user name. When the system log is off, PathMinder ignores the user name.

Log Quit command

The Log Quit command returns you to the main menu. You will be asked to confirm returning to the main menu.

Log Status on the Status Screen

When viewing the status screen (with the Options View Status command), the lower portion of the data window displays the log status. The log status display shows name of the current user, the current account, and whether or not the system log is currently on.

Creating a Readable Log: LOG2TXT.EXE

PathMinder records its system log in a compact form. If the log were recorded in a human-readable form, the information would consume a tremendous amount of space. Of course, you want to be able to read the log file, so PathMinder includes a utility program that will convert the log file into human-readable form.

The conversion program is LOG2TXT. It is a program that is external to PathMinder. It may be invoked as an application, via the Compose command, or even directly from DOS.

For example, to convert the PM.LOG file in the root directory on drive A: to the file PMLOG.TXT in the root directory on drive B:, and assuming

that LOG2TXT.EXE is in the root directory on drive A:, invoke LOG2TXT with:

```
LOG2TXT A:\PM.LOG B:\PMLOG.TXT
```

LOG2TXT can be instructed to generate only a daily summary of system activity. This is useful when you do not want to wade through a complete log of system activity.

The summary is generated when LOG2TXT is invoked with the "/S" command line option.

For example, to create a summary of the PM.LOG file in the root directory on drive C: to the file USERLOG.TXT in the same directory, and assuming that LOG2TXT.EXE is in the root directory as well, invoke LOG2TXT with:

```
LOG2TXT C:\PM.LOG C:\USERLOG.TXT /S
```

LOG2TXT can also be instructed to generate only the log records, with no summary information or headers. This is useful if you wish to import the log data into a spreadsheet or data base management program. Detailed information on the importation of the log data into any specific spreadsheet or data base management program is beyond the scope of this document; please refer to the documentation provided with the spreadsheet or data base management program you are using.

The format with no summaries or headers is generated when LOG2TXT is invoked with the "/N" command line option.

For example, to create a file with only the records of the PM.LOG file in the ZZ directory

on drive C: to the file RECORDS.TXT in the same directory, and assuming that LOG2TXT.EXE is in the TOOLS directory, invoke LOG2TXT from the TOOLS directory with:

```
LOG2TXT C:\ZZ\PM.LOG C:\ZZ\RECORDS.TXT /N
```

Creating an Application for LOG2TXT

To make LOG2TXT very convenient to use, we will create an application menu entry for it. For more detailed information about creating application menu entries, please refer to Chapter 8.

In our example, LOG2TXT will be in the TOOLS subdirectory on drive C:.

The application's name field will be defined as

```
Log to Text
```

so the application will be available from the application menu by pressing [L], (assuming no other applications begin with the letter "L".)

The application's description field will be defined as

```
Convert the PM.LOG file to text
```

to provide more information for someone using our application menu.

The application's path field will be defined as

```
C:\TOOLS
```

This sets the path to the directory where LOG2TXT is located.

The application's filespec field will be defined as

C:\TOOLS\LOG2TXT.EXE

since LOG2TXT has an extension of .EXE and is in the TOOLS subdirectory. Since the location of LOG2TXT will not change, no macro is needed

The application's command line field will be defined as

C:\TOOLS\PM.LOG C:\TOOLS\PMLOG.TXT

which will create the text file in the TOOLS directory, with the name PMLOG.TXT.

Glossary

AUTOEXEC.BAT - The batch file that DOS automatically runs after power-up.

Backspace Key - The key to the immediate left of Num Lock on the keyboard. It causes the previously typed character to be erased.

.BAS - The file extension for a BASIC program.

BASIC Interpreter - The program that allows your PC to execute BASIC programs. It interprets the BASIC program into a form your PC can understand.

BASICA.COM - The filename for the BASIC interpreter supplied with the IBM Personal Computer and XT.

BASICA.EXE - The filename for the BASIC interpreter supplied with the COMPAQ Portable Computer and COMPAQ Plus.

BASSPEC - The environment variable PathMinder checks to find the filespec of your BASIC interpreter.

Batch File - A text file containing a list of commands to be carried out by DOS.

.BAT - The extension of a batch file.

BIOS - An acronym for Basic Input/Output System.

Block Menu - The Editor's menu that contains the block operations.

Clock/Calendar - An accessory for your PC that keeps track of the date and time even when your computer is turned off.

.COM - The extension of a program that can be executed directly by DOS. .COM files are simple memory images, and can not be used for large (over 64k) programs.

COMMAND.COM - DOS's standard command interpreter. When DOS's A> prompt is on the screen, you are interacting with COMMAND.COM.

[Ctrl] Key - The key labeled Ctrl at the left of the keyboard. It is used to indicate a special control code to your computer.

Cursor - The white rectangle in the editor that indicates where your text will be inserted or overtyped.

Cursor Position - The location of the cursor in your text file.

Data Window - The window covering the right half of the screen in the File Manager.

Decryption - The process of restoring encrypted data to its original form.

[Del] Key - The key labeled Del, near the lower right corner of the keyboard. The [Del] key deletes the character under the cursor in the Editor, and closes the highlighted subdirectory in the file manager.

Directory - A list of files on your disk. A disk can have more than one directory. These other directories, which appear as entries in the root directory, are called subdirectories.

DOS - An acronym for Disk Operating System.

Editor - A program used for the creation and modification of text files.

EDLIN - MS-DOS's primitive line-oriented text editor. PathMinder's Editor replaces EDLIN.

Encryption - The process of changing information so it may not be used by unauthorized parties.

[End] Key - The key labeled End, or 1 on the numeric keypad. It moves the cursor to the end of the current line in the Editor, and highlights the last file in the file list in the File Manager.

[Enter] Key - The large rectangular key labeled It starts a new line in the Editor, and executes the highlighted command in the File Manager.

Entry - A line in the file list, representing a single file or subdirectory.

Environment Variable - A mechanism for passing information to programs. When you set an environment variable, your programs can use this information.

Equipment Flag - A memory location in your PC that tells programs what sort of equipment makes up your computer system.

[Esc] Key - The key labeled "Esc" in the upper left corner of the keyboard.

.EXE - The extension for a program that is directly executable. An .EXE file can be more complex than a .COM file.

Extension - The last part of a filename, specifying the file's type. For example, AUTOEXEC.BAT has an extension of .BAT, which tells us that it is a batch file. The extension may be up to three characters long, and is always preceded by a period.

File - A collection of data that is grouped together for storage. For example, the instructions of a program, the characters in a document, or the information on a spreadsheet can be grouped into a file.

File List - The list of files that appears in the File Window.

File Window - The window that displays the files and subdirectories in all open subdirectories. It occupies the left half of the screen in the File Manager.

Flicker - A rapid on and off blinking of portions of the video display.

Function Keys - The ten keys, labeled F1 through F10, that are at the extreme left of the keyboard.

GWBASIC.EXE - Microsoft's BASIC interpreter for MS-DOS computers.

Hardware - The concrete parts of the system. Your printer, your modem, your memory boards, and your disk drives are hardware. PathMinder is not; it is a program, or software.

Hexadecimal - A system of counting based on 16 instead of 10. In hexadecimal, the counting sequence is 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, A, B, C, D, E, F, 10, 11, etc.

Highlight Bar - The inverse bar centered vertically in the file window. The file displayed on the bar is said to be highlighted.

Highlighted - The file displayed on the highlight bar is highlighted. Operations that work on a single file (such as Edit, or File Rename) affect the highlighted file.

[Home] Key - The key labeled 7 and Home on the numeric keypad. In the Editor, the Home Key moves the cursor to the beginning of the current line. In the File Manager it highlights the last file in the file list.

[Ins] Key - The key labeled 0 and Ins on the numeric keypad. In the Editor, the [Ins] key toggles between insert and overtype mode. In the File Manager, the [Ins] key will open the highlighted subdirectory.

Insert Mode (Editor) - In the insert mode, text typed in is inserted at the present cursor position. The existing text is not overwritten.

K (Kilobyte) - In computer terminology, 1024. 128K of RAM is 131,072 bytes of RAM.

Keypad - The group of keys at the far right of the keyboard.

Mark - In the Editor, you mark a block of text to specify the text to be manipulated by a block operation. In the File Manager, you Mark a file to specify its inclusion in a multiple file operation, such as File Copy or File Erase.

Menu - A group of options that you may select from. PathMinder displays its menus at the top of the screen, in the Menu Window. The first line displays the menu title in the upper right corner, and the menu options starting in the upper left. The second line displays the menu option description for the highlighted menu option.

Menu Option - One of the choices you may pick on a menu. PathMinder displays the menu options for the current menu on the first line of the menu window.

Menu Option Description - The one-line description of a Menu Option. PathMinder displays the Menu Option Description of the highlighted option on the second line of the menu window.

Menu Title - The title of the current menu. The Menu Title is displayed in the upper right corner of the menu window.

Menu Window - The window in which menus, error messages, and progress reports appear. The menu window occupies the top two lines of the display.

MS-DOS - Microsoft's Disk Operating System for the PC. PathMinder runs under MS-DOS, or its variant, PC-DOS.

[Num Lock] Key - The key labeled Num Lock on the numeric keypad. The [Num Lock] key toggles the numeric keypad's white keys between their numeric functions and their cursor-movement functions.

Overtype Mode (Editor) - In the overtype mode, text typed in overwrites the text under the cursor. The existing text is destroyed.

PC-DOS - IBM's version of MS-DOS.

[PgUp] Key - The key labeled Pg Up and 9 on the numeric keypad. In the Editor, the [PgUp] key moves the cursor up one page in the text. In the File Manager, the [PgUp] key moves the file at the top of the file window onto the highlight bar.

[PgDn] Key - The key labeled Pg Dn and 3 on the numeric keypad. In the Editor, the Pg Dn key moves the cursor down one page in the text. In the File Manager, the [PgDn] key moves the file at the bottom of the file window onto the highlight bar.

PM.CNF - The PathMinder configuration file. When you select Option Write, PathMinder creates or updates PM.CNF.

PM.EXE - The PathMinder Program file.

PMV.EXE - The PathMinder Virtual Loader.

PM.LOG - The PathMinder Log file.

Pip - The rectangular block that appears to the left of a marked file.

RAM - An acronym for Random Access Memory. RAM is the read/write memory of your computer.

Select - To pick a menu option. You can select a menu option with the left and right arrow keys and the [Enter] key, or with the first letter of the option's name.

SET - The DOS command that allows setting an environment variable.

Shell - A program that replaces DOS's command interpreter, and dispatches your commands to DOS.

Snow - The static-like random pattern of dots that appears on your video display if your video display adapter cannot keep up with the incoming information. PathMinder will snow on an IBM Color Graphics Adapter unless started with the "/S" command line option.

Software - The programs that make your computer useful. Computers without software have been compared to boat anchors.

Status Indicator - An area of the screen that shows the status of your computer or program. For example, in the upper right corner of the Editor's menu window is a status indicator for insert or overtype mode.

Text - Information in a file in a human-readable form.

Text Editor - A program that allows you to enter text, change it, and save it again.

Text File - A file containing only text.

User Interface - The part of a program that interacts with the user; what he sees when operating the computer. PathMinder's user interface features menus and windows.

Video Display Adapter - A computer accessory that allows a PC to be connected to a video display unit, or monitor.

Volume Label - A name given a disk. The volume label may be up to 11 characters long.

Appendix A:
Sample Log File (Text Format)

PathMinder System Log Created 15 Feb 85

Acct	Start Time		Stop Time		Elapsed	Operation	
Bus1	15 Feb 85	8:39:54a -				Login	Jane User
Bus1	15 Feb 85	8:40:29a -	15 Feb 85	8:41:58a	0:01:29	Edit	C:\PM.TXT
Bus1	15 Feb 85	8:42:06a -	15 Feb 85	8:42:36a	0:00:30	Applic	Log 2 Text
Bus1	15 Feb 85	8:42:44a -	15 Feb 85	8:43:51a	0:01:07	Edit	C:\PM.TXT
Bus1		-	15 Feb 85	8:43:57a	0:04:03	Logout	Jane User
Bus3	15 Feb 85	2:32:34p -				Login	Joe User
Bus3	15 Feb 85	2:32:52p -	15 Feb 85	2:33:28p	0:00:36	Edit *	C:\CVT.BAT
Bus3	15 Feb 85	2:33:35p -	15 Feb 85	2:34:46p	0:01:11	Applic	Log 2 Text
Bus3	15 Feb 85	2:35:14p -	15 Feb 85	2:35:27p	0:00:13	Edit	C:\JOE.TXT
Bus3	15 Feb 85	2:35:32p -	15 Feb 85	2:35:58p	0:00:26	Edit	C:\BOB.TXT
Bus3	15 Feb 85	2:36:05p -	15 Feb 85	2:36:25p	0:00:20	Edit *	C:\CVT.BAT
Bus3	15 Feb 85	2:36:32p -	15 Feb 85	2:37:04p	0:00:32	Applic	Log 2 Text
Bus3	15 Feb 85	2:37:25p -	15 Feb 85	2:39:45p	0:02:20	Edit	C:\PM.TXT
Bus3	15 Feb 85	2:45:29p -	15 Feb 85	3:01:29p	0:16:00	Applic	Word PM.DOC
Bus3	15 Feb 85	3:01:51p -	15 Feb 85	3:02:14p	0:00:23	Applic	Log 2 Text
Bus3	15 Feb 85	3:02:40p -	15 Feb 85	3:03:36p	0:00:56	Edit	C:\PM.TXT
Pers	15 Feb 85	3:05:01p -	15 Feb 85	3:05:23p	0:00:22	Edit	C:\PM.SUM
Pers	15 Feb 85	3:06:34p -	15 Feb 85	3:06:50p	0:00:16	Run	C:\ZAP.EXE
Pers	15 Feb 85	3:10:20p -	15 Feb 85	3:10:44p	0:00:24	Compose	dir> dir.doc
Pers	15 Feb 85	3:10:48p -	15 Feb 85	3:11:00p	0:00:12	Edit *	C:\DIR.DOC
Pers	15 Feb 85	3:11:13p -	15 Feb 85	3:14:58p	0:03:45	Applic	Word PM.DOC
Pers		-	15 Feb 85	3:15:01p	0:42:27	Logout	Joe User
Bus3	15 Feb 85	3:15:06p -				Login	Joe User
Bus3	15 Feb 85	3:15:12p -	15 Feb 85	3:26:17p	0:11:05	Applic	Word PM.DOC
Bus3	15 Feb 85	3:26:57p -	15 Feb 85	3:27:21p	0:00:24	Applic	Log 2 Text
Bus3	15 Feb 85	3:27:36p -	15 Feb 85	3:28:34p	0:00:58	Edit	C:\PM.TXT
Bus3	15 Feb 85	3:28:49p -	15 Feb 85	3:29:40p	0:00:51	Compose	dir | lcase
Bus3	15 Feb 85	3:29:55p -	15 Feb 85	3:30:05p	0:00:10	Edit	C:\PM.SUM
Bus3	15 Feb 85	3:30:12p -	15 Feb 85	3:53:32p	0:23:20	Applic	Word PM.DOC
Bus3		-	15 Feb 85	3:56:23p	0:41:17	Logout	System Reset

Account totals for 15 Feb 85

Personal :	0:04:59	(7%)
Business #1 :	0:03:06	(5%)
Business #3 :	0:59:45	(88%)
Business totals :	1:02:51	
Grand total :	1:07:50	
Total Logged time :	1:27:47	

Appendix B:
Format of PM.LOG file

The following information is provided for those users who wish to extract information from the system log file that is created by PathMinder. The information is not necessary to use the system log feature of PathMinder.

Westlake Data Corporation reserves the right to make changes to the log file format without notice.

The log file is composed of separate entries.

Byte 00 : Operation and Account Number:

High 4 bits contain Operation

1 = Edit
2 = Run
3 = Compose
4 = Application
5 = Login
6 = Logout
7 = Edit with file modified

Low 4 bits contain Account

0 = Personal
1 = Business #1
2 = Business #2
...
9 = Business #9

Byte 01 - 02 : Beginning Year (Word Value)

Byte 03 : Beginning Month

Byte 04 : Beginning Day

Byte 05 : Beginning Hour

Byte 06	:	Beginning Minute
Byte 07	:	Beginning Second
Byte 08	:	Beginning Hundredth of a second
Byte 09 - 10	:	Ending Year (Word Value)
Byte 11	:	Ending Month
Byte 12	:	Ending Day
Byte 13	:	Ending Hour
Byte 14	:	Ending Minute
Byte 15	:	Ending Second
Byte 16	:	Ending Hundredth of a second
Byte 17	:	Length of text field
Byte 18 -	:	Start of text field (60 bytes maximum, ASCIIZ format)

The records are not random-access: The text field is variable length, with the first byte of the next record immediately after the text field's ASCII 00 terminator.

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PathMinder Product Registration

Name

Address

City

Serial # (Copy from Program Disk Label)

State

Zip

Purchase Date

Place Of Purchase

Comments:

0000 Please Note: Technical Support available for registered owners only 0000
Technical support hotline (512) 327-2550